

POCHTAR! Yu.S.

Press-forging equipment in West Germany. *Biul.tekh.-ekon.inform.*
Gos.nauch.-issl.inst.nauch.i tekh.inform. 16 no.8:83-88 '63.
(MIRA 16:10)

MELESHKEVICH, P.S.; POCHTAR', Yu.S.; GOLUBEV, V.I.

Stand for testing towing devices. Mashinostroitel' no.8:31
Ag '62. (MIRA 15:8)

(Testing machines)

ACC NR: EWT(d)/EWP(1) IJP(c) PB/CG
AP6023671

SOURCE CODE: UR/0103/66/000/004/0155/0161

AUTHOR: Pocht'ar', Yu. S. (Moscow); Chudakov, A. D. (Moscow)

44
B

ORG: none

TITLE: System for the static testing of a combinative ¹⁰⁰ unit for comparing two quantities given in binary form

SOURCE: Avtomatika i telemekhanika, no. 4, 1966, 155-161

TOPIC TAGS: digital computer, computer component, binary code, algorithm, binary logic, binary number

ABSTRACT: The authors discuss a unit for the comparison of two binary-represented quantities; the unit is the fundamental component of various digital control and adjustment systems. A system of tests has been devised and is considered in this article for an n-place combinative comparison unit which realizes a special algorithm described elsewhere (A. D. Chudakov. Ob algoritme svravneniya dvukh dvoichnykh chisel. Avtomatika i telemekhanika, vol. XXV, No. 3, 1964). Using this test system, from a total of 2^{2n} possible input combinations a minimal number is selected which will ensure verification of all the possible conditions of the elementary logical operations performed by the combinative comparison unit during the comparison

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UDC: 681.142.82

ACC NR: AP6023671

of two binary numbers. Individual unit cell operation is analyzed and an intermediate state table for the logical operations performed is tabulated. The comparison unit considered is constructed of pyramidally arranged comparison cells and consists of a pyramid of three cells, two of which are located at the base and one at the apex of the structure. Such a unit, known as a "second-order pyramid" because of the number of "tiers" in the arrangement, has a total number of possible input combinations of $N = 2^2 \cdot 4 = 256$. Other modifications of this basic type are also considered and state charts are compiled. Orig. art. has: 2 figures and 3 tables.

SUB CODE: 09,12/ SUBM DATE: 31May65/ ORIG REF: 001

Card 2/2 2972

MELESHKEVICH, P.S.; POCHTAR', Yu.S.; GOLUBEV, V.I.

Hydraulic press of 500-ton capacity for assembly and press-fitting
operations. Kuz.-shtam. proizv. 4 no.9:23-25 S '62.
(MIRA 15:9)

(Hydraulic presses)

POCHTARENKO, A.

Change in the system of the KVVU-15s command-transmitting
unit. Mor. flot. 24 no.5:20 My '64. (MIRA 18:12)

1. Nachal'nik radiostantsii teplokhoda "Akhtuba" Kaspiyskogo
parokhodstva.

POCHTARENKO, N.; ZIL'BERMAN, S., inzh.-tekhnolog; FLEYSHMANIS, O.,
inzh. po trudu

Five-day working week in a tobacco factory in Riga. Sots.trud 4
no.3:113-115 Mr '59. (MIRA 12:4)

1. Direktor Rizhskey tabachnoy fabriki (for Pochtarenko).
(Riga--Tobacco industry)

POCHTAREV, A.A., klinicheskiy ordinator.

Relation of size of the mandibular angle to age and to bite.
Stomatologia no.5:40-43 '53. (MLRA 7:1)

1. Iz kafedry ortopedicheskoy stomatologii (ispolnyayushchiy
obyazannost' zaveduyushchego - dotsent D.S.Ayzenberg) Khar'kovskogo
meditsinskogo stomatologicheskogo instituta (direktor - dotsent
G.S.Voronyanskiy). (Jaws)

POCHTAREV, A.A.,assistant (Khar'kov)

Using novocaine anesthesia in preparing teeth for permanent
prosthesis. Probl. stom. 3:257-260 '56 (MLRA 10:5)
(NOVOCAINE) (DENTAL PROSTHESIS)

POCHTAREV, A.A., assistant (Khar'kov)

Effectiveness of fluorine paste, strontium chloride, sulfine paste
and AKR-7 monomer in preparing teeth for prosthesis. Probl. stom.

3:401-404 '56

(MLRA 10:5)

(ANESTHESIA IN DENTISTRY)

POCHTAREV, A.A. (Khar'kov)

Comparative evaluation of the effectiveness of some anesthetic substances in preparing the teeth for a nonremovable prosthesis, based on electrometry data. Probl.stom. 6:259-261 '62.

(MIRA 16:3)

(ANESTHESIA IN DENTISTRY) (DENTAL PROSTHESIS)
(ELECTROMETER)

POCHTAREV, A.A., Cand Med Sci--(diss) "Data ^{to the} comparative evaluation of certain anaesthetic preparations used in the preparation of the teeth for a non-removable dental prosthesis." Khar'kov, 1958. 16 pp (Khar'kov State Med Inst), 300 copies (KL,30-58, 133)

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POCHTAREV, A.A.

11

Frequency of painful drilling of the teeth in preparing them
for permanent prosthesis. Vrach.delo no.2:203 P '59.

(MIRA 12:6)

1. Kafedra ortopedicheskoy stomatologii (zav. - dotsent M.R.
Marey) Khar'kovskogo stomatologicheskogo instituta.
(PAIN) (DENTISTRY)

MILYUTIN, V.I.; FETISOV, D.V.; RASPLETIN, K.K.; SPEKTOR, F.U.;
POCHTAREV, B.I.

Small electrostatic microscopes. Izv. AN SSSR. Ser. fiz. 23
no.4:454-458 '59. (MIRA 12:5)
(Electron microscope)

POCHTAREV, B.I.

"The Earth's Magnetic Field and the Figure of the Geoid," Trudy
Nauchno-Issledovatel' Inst Zemnogo Magnetizma, No. 5, 1950.

SO: A-3,088,877 25 Sep 57

KUSHNIR, Yu.M.; FETISOV, D.V.; DER-SHVARTS, G.V.; POCHTAREV, B.I.; TOKAREV, P.D.;
RASPLETIN, K.K.; GUROVA, R.P.; POSTNIKOV, Ye.B.

The REMP-1 scanning-type electronic microprobe instrument. Zav.lab. 30
no.12:1510-1512 '64. (MIRA 18:1)

S/048/63/027/003/020/025
B106/B238

AUTHORS: Kushnir, Yu. M., Fetisov, D. V., Raspletin, K. K.,
Pochtarev, B. I., Spektor, F. U., Gurova, R. P., Tokarev,
I. D., Osipov, V. N., and Pavlov, V. A.

TITLE: A modified raster microscope - local X-ray microanalyzer
and its use

PERIODICAL: Akademiya nauk SSSR. Izvestiya. Seriya fizicheskaya, v. 27,
no. 3, 1963, 415-419

TEXT: A modified scanning electron microscope - local X-ray microanalyzer
is described briefly, and a few data are on its use in investigating
metals, minerals and semiconductors presented. The crystal X-ray
spectrometer of the apparatus makes it possible to analyze the radiation
of elements from magnesium to uranium. The dead time of the counter tube
does not permit of obtaining qualitative X-ray patterns when the
scanning velocities are high. The authors therefore developed a system of
slow scanning which provides a scanning field with a 1 : 1 format and a
resolution of 200 - 300 lines at 1 frame/min. The area of the scanning
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A modified raster microscope - local ...

S/048/63/027/003/020/025
B106/B238

field on the object amounts to 0.04 to 0.25 mm². Under these conditions, the dead time of the counter tube imposes practically no limit on the resolution of the characteristic X-rays patterns. A block of slow sweeps serves for observing the images visually, and is provided with a moving film camera with a large afterglow. A second moving film camera, synchronized with the first, records the images photographically; it focuses the spot sharply and has a high accelerating voltage. The characteristic X-ray pattern were also recorded using an NaI-crystal scintillation counter which worked satisfactorily at wavelengths below 1.5 Å. The sharpness and contrast of the images obtained due to the secondary electrons were increased by a special device for correcting the frequency characteristics of the video amplifier block. This was done by filtering out signals between 25 and 150 cps and those near to 5 Mcs. The improvements of the basic elements of the X-ray microanalyzer made it possible to obtain characteristic X-rays patterns for the first time, and to undertake comparative studies of a few objects on the basis of the microphotographs. Besides making it possible to obtain reflected characteristic electron beam and X-ray patterns for macroscopic surfaces, the instrument also permits the vizualization of p - n transitions in
Card 2/3

S/048/63/027/003/020/025

A modified raster microscope - local ... B106/B238

semiconductors. The band width of the barrier layer depends on the applied voltage and can easily be determined. The authors are now working to develop a raster microscope - local X-ray analyzer as an industrial model; this will feature magnetic optics, thus making it possible to achieve high resolution and a much higher current density in the electron probe. There are 5 figures.

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KUSHNIR, Yu.M.; FETISOV, D.V.; RASPLETIN, K.K.; POCHTAREV, B.I.;
SPEKTOR, F.U.; GUROVA, R.P.; TOKAREV, P.D.; OSIPOV, V.N.;
PAVLOV, V.A.

Improving the scanning electron microscope -- X-ray local
microanalyzer; some of its applications. Izv. AN SSSR. Ser. fiz.
27 no.3:415-419 Mr '63. (MIRA 16:2)
(X-ray spectroscopy)

POCHTAREV, B.I.; RASPLETIN, K.K.; FETISOV, D.V.

Apparatus for the measurement of the resolving power and
luminescence of fluorescent screens (PFS). Izv. AN SSSR. Ser.
fiz. 23 no.4:462-466 '59. (MIRA 12:5)
(Luminescence--Measurement)

POCHTAREV, B. I.; RASPLETIN, K.K.; FETISOV, D.V.

Device for measuring the luminescence of fluorescent screens.
Izv. AN SSSR. Ser. fiz. 25 no.4:512-514 Ap '61. (MIRA 14:4)
(Fluorescence) (Photometry)

POCHTAREV, B.I.

Adapter to a PRS device for reflection tests on luminophors.
Izv. AN SSSR. Ser. fiz. 25 no.4:514-516 Ap '61. (MFA 14:4)
(Phosphors) (Spectrophotometry)

KUSHNIR, Yu.M.; FETISOV, D.V.; RASPLETIN, K.K.; POCHTAREV, B.I.; SPEKTOR, F.U.;
KABANOV, A.N.; ANISIMOV, V.F.

Scanning electron microscope, an X-ray microanalyzer. Izv.AN SSSR.
Ser.fiz. 25 no.6:695-700 Je '61. (MIRA 14:6)
(X-ray microscope)

FETISOV, D.V.; POCHTAREV, B.I.; KABANOV, A.N.

Vacuum switch with a single regulating handle. Izv.AN SSSR.Ser.fiz.
25 no.6:776-779 Je '61. (MIRA 14:6)
(Vacuum apparatus)

Pochtarev, B.I.

AUTHORS: Milyutin, V.I., Fetisov, D.V., Raspletin, K.K., 32-1-38/55
Spektor, F.U., Pochtarev, B.I.

TITLE: Simplified Electrostatic Electron Microscope (Uproshchenyy
elektrostaticheskiy elektronnyy mikroskop).

PERIODICAL: Zavodskaya Laboratoriya, 1958, Vol. 24, Nr 1, pp. 92-96 (USSR)

ABSTRACT: In this paper the model of the simplified electrostatic micro-
scope for 45 kV (MЭ(M -45) is described. The apparatus consists
of two separate parts: the microscope proper with feeding device
(700x500x1400 mm) and the vacuum apparatus (700x400x1150 mm). The
efficiency of the apparatus amounts to 50-60 Å, while 1500 to
8000-fold electron-optical enlargement is attained in four steps
by the potential modification of an intermediary lens. The field
of observation has a diameter of 62 mm. The apparatus makes it pos-
sible to deal with 5 samples, one after the other, and to take 10
photographs (including stereophotographs), without hereby dis-
turbing the vacuum. By means of this microscope it is also possible
to take diffraction- and emission pictures of heated objects. In
this case the cathode is replaced by the sample, and another anode

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Simplified Electrostatic Electron Microscope

32-1-38/55

is fitted. In the case of the diffraction picture, a number of lenses is taken out. In the vacuum plant the diffusion pump "MM-40-A" and the pre-vacuum pump "BH-461" are fitted. The same device can also be used as a vacuum atomizer, for which purpose it is fitted out with various additional devices. The feeding device of the microscope consists of: 1 rectifier for 50 kV, a device for regulating cathode heating, a voltage regulator, a control board for the microscope and the vacuum plant as well as of the additional devices. (The following additional devices are mentioned: a "Tesla" transformer, a voltage stabilizer, etc.). There are 6 figures and 1 Slavic reference.

AVAILABLE: Library of Congress

Card 2/2 1. Electrostatic microscope-Nomenclature

AUTHORS: Milyutin, V.I., Fetisov, D.V., SOV/48-23-4-5/21
Raspletin, K.K., Spektor, F.U., Pochtarev, B.I.

TITLE: Small-sized Electrostatic Microscopes.
(Malogabaritnyye elektrostatischekiye mikroskopy)

PERIODICAL: Izvestiya Akademii nauk SSSR. Seriya fizicheskaya, 1959,
Vol 23, Nr 4, pp 454 - 458 (USSR)

ABSTRACT: First, mention is made of the electron microscopes produced industrially (EM-3, UEM-100) and the fact is pointed out that simpler and cheaper electrostatic microscopes suffice for a great part of operations. Some small-sized electrostatic microscopes have been developed. Figure 1 shows a 40 kv electrostatic table electron microscope with a 1200-5600fold magnification range and a resolving power of up to 50 μ . Next, a description is given of the instrument MESM-45, which is being considered for industrial production. The instrument consists of two units: microscope with source of current and vacuum system. The three-part electron accelerator is described, followed by the microscope slide and the lens system. Camera with fluorescence screen and plateholder and ocular tube, which features a 5fold optical magnification, are fitted

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Small-sized Electrostatic Microscopes

SOV/48-23-4-5/21

under the lens block. The vacuum system consists of the mechanical pump VN-461 and the diffusion pump MM-40-A. The diagram of the current source of the instrument is shown in figure 5. At a maximum load of 100 μ A the current fluctuation amounts to 0.005%. Finally, the mechanical construction and applicability are described. There are 5 figures and 2 Soviet references.

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22176

S/O48/61/025/004/025/048
B102/B212

24.3300

24.3500

AUTHORS:

Pochtarev, B. I., Raspletin, K. K., and Fetisov, D. V.

TITLE:

A device for measuring the luminescence parameters of fluorescent screens

PERIODICAL:

Izvestiya Akademii nauk SSSR. Seriya fizicheskaya, v. 25, no. 4, 1961, 512-514

TEXT: This paper has been presented at the 9th Conference on Luminescence (Crystal Phosphors) which took place in Kiyev from June 20 to 25, 1960. It offers a brief description of the device ПРС (PRS) developed by the authors for the investigation of the main characteristics of cathodoluminophores and fluorescent screens. The latest model of the PRS device is a universal electron-optical apparatus using a system of electrostatic lenses. The device makes it possible to investigate the resolution, the light yield, the composition of the luminescence spectrum, and the purity of the surface if exposed to an electron beam. The maximum resolution of the device is found at 700 lines/mm, the beam voltage can be varied from 0-30 kv and the beam current from $2 \cdot 10^{-8}$ - $2 \cdot 10^{-6}$ a. The excitation current may be in-
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X

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B102/B212

X

A device for ...

creased up to $1 \cdot 10^{-5}$ a. The spot diameter on the screen (luminophore) is constant and measures 20 mm. The operating pressure in the chamber is $(1-3) \cdot 10^{-4}$ mm Hg. 8-30 screens or 20 cuvettes with luminophore powder may be placed into the measuring chamber. The light yield of yellow-green or blue screens (luminophores) is measured with selenium and antimony-cesium photocells, respectively. The principle, design, and measuring operations of this device have been described earlier by the authors (Izv. AN SSSR, Ser. fiz. 23, No. 4, 462, 466 (1959)). Here, the measurement of the spectral composition of radiations is briefly described. This measurement is very easy to do in transmitted and also reflected radiation since the luminescence spectrum is nearly independent to obtain spectral curves, and a spectrograph or a monochromator is utilized. Fig. 2 shows the revolving optical system which is used to measure luminescence spectra. The authors thank Yu. M. Kushnir and M. A. Meyerov for advice, assistance, and interest. There are 2 figures and 1 Soviet-bloc reference.

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A device for ...

Legend to Fig. 2: 1) Tube; 2) lens;
3) mirror; 4) spectrometer;
5) support; 6) screen;
7) electron beam; 8) camera;
9) light path.

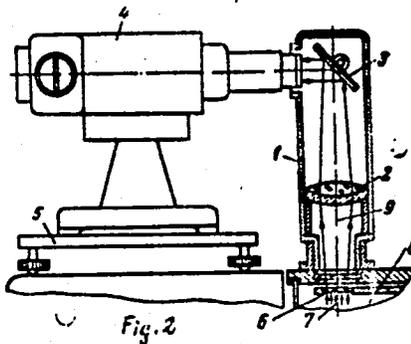


Fig. 2

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22177

S/048/61/025/004/026/048
B117/B212

24,3300

24,3500

AUTHOR: Pochtarev, B. I.

TITLE: Attachment to the ПРС (PRS) device for investigating
luminophors by top illumination observation

PERIODICAL: Izvestiya Akademii nauk SSSR. Seriya fizicheskaya, v. 25,
no. 4, 1961, 514-516

TEXT: The present paper was read at the 9th Conference on Luminescence (crystal phosphors). The author reports on an attachment to the PRS device, which makes it possible to investigate the light yield and the spectral composition of the radiation of luminophors or fluorescent screens by top illumination observation. The light yield and light spectra of luminophors are investigated by this method by utilizing the same measuring methods and instruments which are used when investigating fluorescent screens with the help of transillumination observation. The circuit diagram of the attachment shown in the figure is an independent electron-optical system, which is mounted instead of the upper cover on the measuring chamber of the PRS instrument. This electron-optical system

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B117/B212

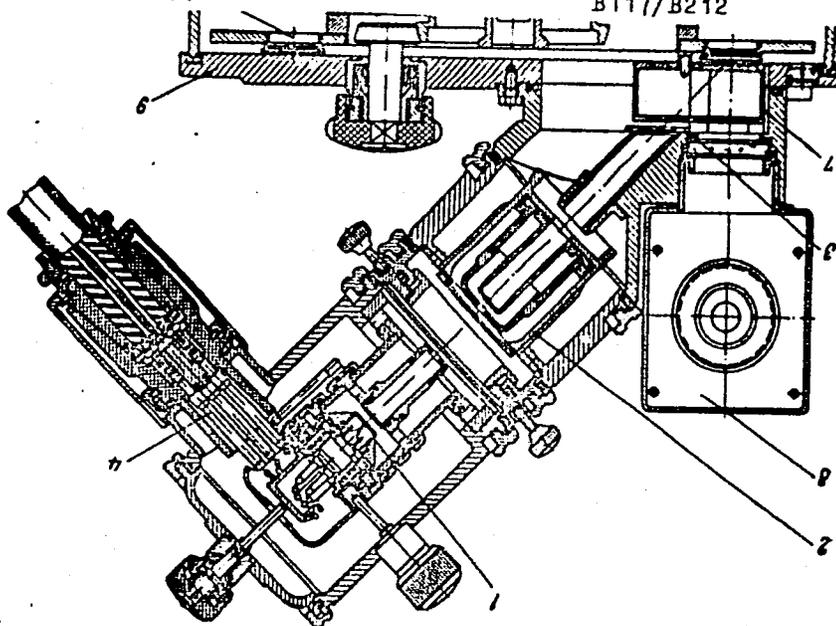
Attachment to the...

consists of an electron device (1) and an electrostatic lens (2) and it generates and focuses an electron beam of even intensity which will pass through a diaphragm (3). A shielded cable (4) is used to supply the high voltage and the cathode current to the electron capacitor. The luminophorous samples to be investigated are put into special cuvettes which are placed into the rotating drum (5) in the measuring chamber. In the path of the electron beam collector (7) is interconnected for secondary electrons. The device (8) to measure the light yield or a rotating device necessary to control the light stream is mounted directly above the fluorescent surface of the excited luminophor or fluorescent screen. (10) represents the current collector. The author thanks M. A. Meyerov for his assistance. B. I. Maksakov stated in a discussion following the lecture of this paper that it would be desirable to find a method for the PRS instrument, which has multiple applications, to excite the fluorescent screens not only by electron beams but also by X-rays. It would also be desirable if the Conference would suggest this instrument for mass production. [Abstracter's note: Essentially complete translation]. There are 1 figure and 3 Soviet-bloc references.

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Attachment to the...

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B117/B212



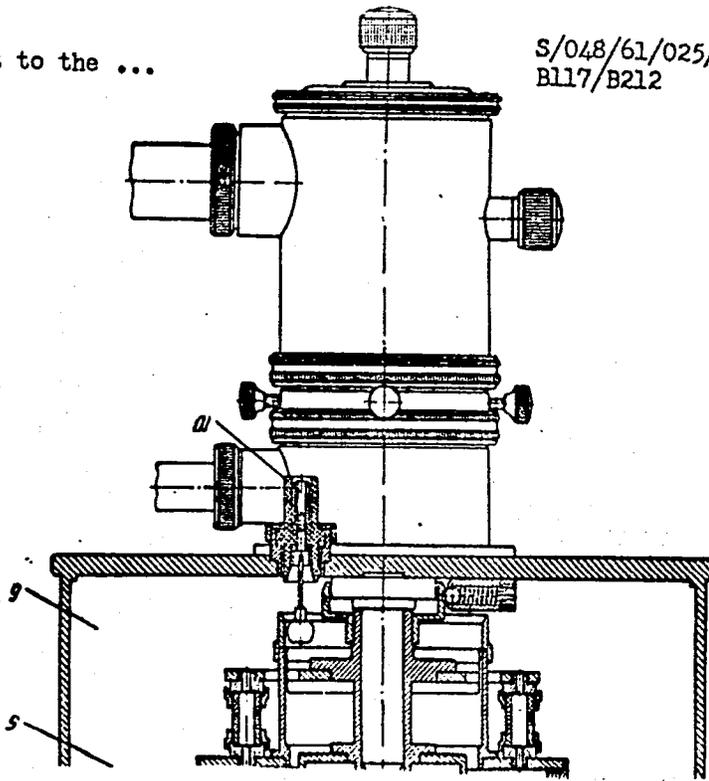
Card 3/4

22177

Attachment to the ...

S/048/61/025/004/026/048
B117/B212

Card 4/4



AUTHORS:

Pochtarev, B. I., Raspletin, K. K.,
Fatsov, D. V.

307/4-02-17/23

TITLE:

An Instrument for the Measurement of the Resolving Power
and the Light Output of Fluorescing Screens (PS) together with
izmereniya razreshayushchey sposobnosti i svetlosti
fluorestsiruyushchikh ekranov (PRS)

PERIODICAL:

Izvestiya Akademii nauk SSSR. Seriya fizicheskaya, 1981,
Vol 23, Nr 4, pp 462-466 (USSR)

ABSTRACT:

The main characteristic feature of technical
cathodoluminophores is their resolving power. This is
determined by measuring the minimum distance, at which two
lines projected on the screen may still be visible as
separated from each other. The knowledge of the light output
is equally important when assessing the intensity of the
In this connection, the spectral distribution of the
intensity is of great interest. The instrument described
developed to serve for the determination of the resolving
power of the light output, and of the spectral intensity
distribution. It works with 5-30 kv accelerating voltage. The
instrument makes it possible to investigate the resolving

Cont. 1/2

An Instrument for the Measurement of the Resolving Power and the Light Output of Fluorescing Screens (FR)

power of a screen up to a maximum of 10¹⁰ lines per cm. The screen to be investigated is observed through a microscope by a 20-40 fold magnification. The method devised by A. A. Lebedev is applied, by which a grating pattern on the screen is investigated. The light output is measured with a photocell and is given in candles per watt. Description follows of the mechanical construction of the instrument, of measuring devices and source of error. The authors thank their collaborators Yu. M. Kuznir, V. I. Milyutin, and Ye. S. Ratner. There are 4 figures and 1 Soviet reference.

Carl 2/2

KUSHNIR, Yu.M.; FETISOV, D.V.; DER-SHVARTS, G.V.; POCHTAREV, B.I.; TOKAREV, P.D.;
RASPLETIN, K.K.; SPEKTOR, F.U.; GUROVA, R.P.; POSTNIKOV, Ye.B.;
OSIPOV, V.N.; PAVLOV, V.A.; POGUDINA, M.V.

Combined scanning electron microscope and X-ray microanalyzer with
magnetic electron optics. Izv. AN SSSR. Ser. fiz. 27 no.9:
1166-1172 S '63. (MIRA 16:9)
(Electron microscope) (X-ray spectroscopy)

POCHTAREV, F.K.

MYAGKOV, K.N., inzhener; SVETLOV, S.I., inzhener; POCHTAREV, F.K.,
inzhener; TURKIN, V.S., kandidat tekhnicheskikh nauk;
MAKARICHEV, V.V., kandidat tekhnicheskikh nauk; TESLER, P.A.;
KRIVITSKIY, M.Ya., kandidat tekhnicheskikh nauk.

Large-panel apartment houses built with honeycombed concrete.
Stroi.prom.32 no.2:6-13 F '54. (MLRA 7:2)

1. Glavuralpromstroy (for Myagkov, Svetlov and Pochtarev).
2. Tsentral'nyy nauchno-issledovatel'skiy institut promysh-
lennykh sooruzheniy (for Turkin, Mararichev, Tesler and Krivitskiy).
(Apartment houses) (Concrete construction)

MYAGKOV, K.H., inzhener; MOSKVIN, G.V., inzhener; BRUKOV, A.T., inzhener;
POCHTAREV, F.K., inzhener; PESHKOV, M.F., inzhener; KRYSHDEVICH, V.A.,
inzhener; MAKARYCHEV, V.V., kandidat tekhnicheskikh nauk; KUDRYASHOV,
P.T., kandidat tekhnicheskikh nauk; KRIVITSKIY, M.Ya., kandidat
tekhnicheskikh nauk; MATSELINSKIY, R.N., kandidat tekhnicheskikh
nauk TESLER, P.A., kandidat tekhnicheskikh nauk

Large reinforced foam concrete panels for heated beamless floors
of industrial buildings developed by the Central Scientific Re-
search Institute of Construction and the Northern Urals Heavy
Construction Trust. Bats. i izobr. predl. v stroi. no.81:18-19
'54. (MIRA 8:6)

1. Glavuralpromstroy (for Myagkov, Moskvina, Brukov) 2. Sevural-
tyazhtroy (for Pochtarev, Peshkov, Kryshdevich) 3. Tsentral'nyy
nauchno-issledovatel'skiy institut promyshlennykh sooruzheniy
(for Makarychev, Kudryashov, Krivitskiy, Matselinskiy, Tesler)
(Floors, Concrete)

POCHTAREV, F.K., inzhener; MANZHURA, F.K.; KRIVITSKIY, M.Ya., kandidat
tekhnicheskikh nauk.

Cellular concrete building element plant. Stroi.prom. 34 no.1:
8-11 Ja '56. (MLRA 9:5)

1. Trest Sevuraltiyashstroy (for Pochtarev, Manshura); 2. Tsentral'-
nyy nauchno-issledovatel'skiy institut promyshlennykh sooruzheniy.
(Berezniki--Precast concrete)

ACC NR: AM6018035

Monograph

UR/

Pochtarev, N. F. (Candidate of Technical Sciences)

High-speed four-cycle diesels (Bystrokhodnyye chetyrekhtaktnyye dizeli) Moscow, Voenizdat M-va obor. SSSR, 1965. 210 p. illus., biblio. 5000 copies printed.

TOPIC TAGS: high speed diesel engine, diesel engine vehicle, diesel engine/V-2 diesel engine

PURPOSE AND COVERAGE: This book is intended for tank-crew mechanics, artillery-tractor and heavy-truck drivers, and associated servicing personnel. General descriptions and operating principles of four-cycle diesels are discussed with particular reference to V-2 diesel engines, which are widely used in combat, transport, and other specialized vehicles. Specific requirements for diesel engines used in various climatic zones are also considered, along with their maintenance. The book contains 6 Soviet references.

TABLE OF CONTENTS (Abridged);

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- Ch. 1. Theoretical principles of four-cycle diesel-engine operation - 11
- Ch. 2. Design of the V-2 diesel engine - 58
- Ch. 3. Diesel fuel- and air-supply systems - 107

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ACC NR: AM6018035

- Ch. 4. Diesel-engine lubrication -- 143
- Ch. 5. Cooling, heating, and starting the diesel engine - 162
- Ch. 6. Operation of the diesel engine - 180

Bibliography - 207

SUB CODE: 21/

SUBM DATE: 13Aug65/

ORIG REF: 016/

Card 2/2

Mikhail Grigor'yevich
NERSESIAN, Mikhail Grigor'yevich; KAMENTSEVA, Yuliya Vladimirovna;
POCHTAREV, N.P., inzh.-polkovnik, red.; KONOVALOVA, Ye.K.,
tekh.n.red.

[Armored tank equipment of the U.S., British, and French
armies] Bronetankovaya tekhnika armii SShA, Anglii i Frantsii.
Moskva, Voen.izd-vo M-va obr. SSSR, 1958. 366 p. (MIRA 12:4)
(Tanks (Military science))

ZHIL'TSOV, V.R.; ZELENOV, A.F.; KOKIN, A.G.; KOLOSOV, V.A.;
KOROBITSYN, M.D.; MALYAVINSKIY, A.M.; NEFEDOV, Ya.D.;
PAVLOV, A.V.; STEPANOV, Yu.A., prof.; SUVOROV, V.G.;
YUSHIN, S.I.; POCHTAREV, N.F., kand. tekhn. nauk, inzh.-
polkovnik, red.; KUZ'MIN, I.F., tekhn. red.

[Internal combustion engines; design and performance] Dviga-
teli vnutrennego sgoraniia; ustroistvo i rabota. [By] V.R.
Zhil'tsov i dr. Pod red. I.U.A.Stepanova. Moskva, Voen. izd-vo
M-va obor. SSSR, 1955. 470 p. (MIRA 16:6)
(Internal combustion engines)

POCHTAREV N F

ПАПОК, Константин Карлович, доктор техн.наук, проф.; ПОЧТАРЕВ, Н.Ф.,
канд.техн.наук, инженер-полковник, ред.; СРИБНИС, Н.В., техн.ред.

[Diesel fuels] Дизельные топлива. Москва, Воен.изд-во М-ва обор.
СССР, 1957. 111 п. (MIRA 10:12)

(Diesel fuels)

KARPENKO, Vladimir Georgiyevich, dotsent, kand.tekhn.nauk; POCHTAREV, N.F.,
kand.tekhn.nauk, inzh.-polkovnik, red.; MEDNIKOVA, ~~A.N., tekhn.red.~~

[Operation of wheeled and crawler-type vehicles under winter
conditions] Zimmislaia ekspluatatsiia kolesnykh i gusenichnykh
mashin. Moskva, Voen.izd-vo M-va obor. SSSR, 1958. 255 p.

(MIRA 12:3)

(Motor vehicles--Cold weather operation)

ANTONOV, A.S.; ARTAMONOV, B.A.; KOROBEKOV, B.M.; MAGIDOVICH, Ye.I.;
POCHTAREV, N.F., inzhener-polkovnik, redaktor; KUZ'MIN, I.F.,
tehnicheskii redaktor.

[The tank.] Tank. Moskva, Voennoe izd-vo Ministerstva oborony
SSSR, 1954. 607 p. (MIRA 83)
(Tanks (Military science))

ПАПОК, К.К., профессор, доктор технических наук; ПОЧТАРЕВ, Н.Ф., кандидат
технических наук, редактор; СОКОЛОВА, Г.Ф., ~~технический~~ редактор.

[Gasolines] Benziny. Izd. 2-e, dop. Moskva, Voen.izd-vo Ministerstva
oborony SSSR, 1955. 150 p. (MIRA 8:6)
(Gasoline)

AKSENENKO, Vasilii Danilovich, kand. tekhn. nauk, inzhener-podpolkovnik;
PETROV, Aleksandr Vladimirovich, inzhener-polkovnik; POCHTAREV,
N.F., kand. tekhn. nauk, inzhener-polkovnik, red.; SRIBCHIS,
N.V., tekhn. red.

[Planetary and hydraulic transmissions] Planetarnye i gidravli-
cheskie peredachi. Moskva, Voen.izd-vo M-va obor. SSSR, 1961.
245 p. (MIRA 15:2)

(Automobiles—Transmission devices)
(Vehicles, Military—Transmission devices)

PAPOK, Konstantin Karlovich, doktor tekhn.nauk, prof.; POCHTAREV, N.F.,
kand.tekhn.nauk, inzh. polkovnik, red.; SOLOMONIK, R.L.,
tekhn.red.

[Lubricating oils] Smazochnye masla. Izd.2., perer. i dop.
Moskva, Voen.izd-vo M-va oborony SSSR, 1962. 254 p.
(MIRA 15:5)

(Lubrication and lubricants)

POCHTAREV, N.F.

17th All-Union Conference of Tractor Manufacturers. Trakt.
i sel'khoz mash. no.12:48, 3 of cover D '65.

(MIRA118:12)

1. Nachal'nik Otdela nauchno-tehnicheskoy informatsii
Gosudarstvennogo soyuznogo nauchno-issledovatel'skogo
traktornogo instituta.

POCHTAREV, V.I.

Regional secular geomagnetic variations in the U.S.S.R. Geomag. i aer.
3 no.1:145-147 Ja^F '63. (MIRA 16:4)

1. Institut zemnogo magnetizma, ionosfery i rasprostraneniya radiovoln
AN SSSR, Leningradskoye otdeleniye.
(Magnetism, Terrestrial—Secular variation)

L 21545-66 EWT(m)/T/EWP(t) JD

ACC NR: AP6008064

SOURCE CODE: UR/0032/66/032/002/0192/0194

AUTHOR: Pochtarev, V. I.; Milyutin, V. I.; Kiseleva, V. P.

40
B

ORG: none

TITLE: A method for studying the microstructure of a multislit photocathode in an electron microscope

SOURCE: Zavodskaya laboratoriya, v. 32, no. 2, 1966, 192-194

TOPIC TAGS: photocathode, electron microscopy, photoelectric property

ABSTRACT: A method is proposed for studying the microstructure of a semitransparent multislit photocathode in an electron microscope, and the relationship between the microstructure and the photoelectric properties of the cathode is analyzed. The experimental setup is shown in the figure. Tube 1 is 40 mm in diameter and 150 mm long. Cathode 2 has a working diameter of 25 mm. Mounted in the tube is a double knife with quartz vaporizers 3 which may be used to produce several replicas of a single specimen during preparation of the photocathode. Vaporizers of various volumes are used with a heating current of 8-10 a. Spectral analysis of the gases re-

UDC: 537.533.35

Card 1/2

2

L 21545-66

ACC NR: AP6008064

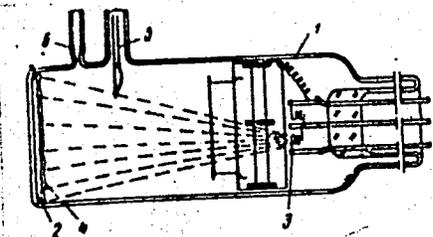


Fig. 1. Experimental tube for studying the structure of photocathodes

- 4 - Quartz film; 5 - antimony vaporizer; 6 - exhaust tube for cesium, potassium, and sodium.

leased during quartz vaporization showed CO and CO₂ which sometimes reduce the sensitivity of a photocathode. These photocathodes were made from antimony, potassium, sodium and cesium. Electron photomicrographs are given showing the cathode in various stages of its preparation. It was found that highly sensitive photocathodes (of the order of 150-200 μ a/lu) have a comparatively uniform structure without sharply defined crystal boundaries. Photocathodes with a more clearly defined crystal structure and sharp boundaries have a moderate sensitivity of the order of 100 to 130 μ a/lu. The studies showed that the structure of the photocathode develops irregularly, particularly in specimens oxidized in air. Orig. art. has: 5 figures.

[14]

SUB CODE: 20/

SUBM DATE: none/

ORIG REF: 001/

ATD PRESS: 4219

Card 2/2

BLG

L 11434-67 ENT(1)/ECC GW/GD

ACC NR: AT6021016

SOURCE CODE: UR/0000/65/000/000/0079/0087

AUTHOR: Vints, B. D.; Pochtarev, V. I.

ORG: none

TITLE: Construction of a normal geomagnetic field by mathematical means

SOURCE: AN SSSR. Institut fiziki Zemli. Nastoyashcheye i proshloye magnitnogo polya Zemli (The present and past of the earth's magnetic field). Moscow, Izd-vo Nauka, 1965, 79-86

TOPIC TAGS: geomagnetism, geomagnetic field, map

ABSTRACT: A normal geomagnetic field is defined as a field which makes it possible to separate a given class of anomalies from the observed geomagnetic field. In the Soviet Union only two kinds of normal fields are in use: the field of a homogeneously magnetized globe (T_0) from which world magnetic anomalies are isolated, and the field which represents a sum of fields of homogeneous magnetization and world anomalies ($T_n = T_0 + T_w$) from which local and regional anomalies are isolated. A more correct separation of the local and regional anomalies requires a normal field of the type $T'_n = T_0 + T_w + T_{lr}$, where T_{lr} is the field of large regional anomalies. Such a field has been in effect constructed for an altitude of 50 km in the period of 1960 using a computer. It is suggested that a normal field of the T'_n type, constructed to scales of 1:2, 500,000 and 1:10,000,000, should be used as the only normal field in making

Card 1/2

L 11434-67

ACC NR: AT6021016

charts of local and regional anomalies for the territory of the Soviet Union. Normal field T_n has also been constructed for the period of 1960 to scales of 1:2,500,000 and 1:10,000,000 using ordinary graphical methods. In the light of the discussion, large regional magnetic anomalies can be represented as remanent fields obtained as a difference between the two normal fields, i.e.,

$$T_{lr} = T'_n - T_n$$

The T_{lr} has been constructed for the territory of the Soviet Union to a scale 1:5,000,000. The size of large regional anomalies varies from 200 to 1000 km in diameter, and their intensity from 150 to 300 γ . It is concluded that normal fields of the T_n and T'_n type will make it possible to make a more objective separation of anomalies on the physico-geological basis. Large regional magnetic anomalies, obtained for the territory of the Soviet Union, are of special interest since they are associated with physico-geological effects in the crystalline base and in the upper mantle.¹² Orig. art. has: 5 figures.

SUB CODE: 08/ SUBM DATE: 21Sep65/ ORIG REF: 008

Card 2/2 bab

POCHTAREV, V.I.

Use of V.A.Kotel'nikov's theorem in the study of geophysical phenomena. Geomag.i aer. 1 no.2:278-281 Mr-Apr '61. (MIRA 14:7)

1. Leningradskoye otdeleniye Instituta zemnogo magnetizma, ionosfery i rasprostraneniya radiovoln AN SSSR.
(Geophysical research)

S/203/63/009/001/016/022
A061/A126

AUTHOR: Pochtarev, V. I.

TITLE: Regional secular geomagnetic variations in the USSR territory

PERIODICAL: Geomagnetizm i aeronomiya, v. 3, no. 1, 1963, 145 - 147

TEXT: A chart of the regional anomalies of the vertical component of the geomagnetic secular variations was drawn for the USSR territory and neighboring regions. This chart is confronted with the tectonic chart of the USSR (Tektonicheskaya karta SSSR i sopredelennykh stran m-ba 1 : 5,000,000 [Tectonic chart of the USSR and neighboring countries, scale 1 : 5,000,000], N. S. Shatskiy, Gosgeltekhizdat, M., 1957), and it is shown that regions of the Earth's crust, where strong upheavals predominate, display an accumulation of magnetic energy. On the other hand, in subsiding regions of the Earth's crust the magnetic energy is found to diminish. The variations of magnetic energy can be explained by variations of the rock temperature, of the Earth's crust composition or of the layers underneath the crust, or also by changes of pressure and of the geochemistry

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Regional secular geomagnetic variations S/203/63/003/001/016/022
A061/A126

of these regions. The relationship between tectonics and secular variations permits conclusions to be drawn as to processes in the Earth's interior. The depth of the sources of the secular variations is estimated at 300 - 400 km. There is 1 figure.

ASSOCIATION: Institut zemnogo magnetizma, ionosfery i rasprostraneniya radiovoln AN SSSR, Leningradskoye otdeleniye (Institute of Terrestrial Magnetism, Ionosphere and Radio Wave Propagation AS USSR, Leningrad Department)

SUBMITTED: July 25, 1962

Card 2/2

DIMAKSYAN, A.M.; POCHTAREV, V.I.

Criteria for the adequacy of information in studying hydrometeorological processes. Trudy GGI no.101:5-18 '63. (MIRA 16:7)
(Hydrometeorological research)

POCHTAREV, V.I.

V.I.Pochtarev's reply to I.U.D.Kalinin and P.M.Kropotkin's
articles. Izv.AN SSSR.Ser.geofiz. no.6:911-912 Je '60.
(MIRA 13:6)

(Magnetism, Terrestrial) (Kalinin, I.U.D.)
(Kropotkin, P.M.)

POCHTAREV, V.I.

Structure of the field of secular geomagnetic variations.
Geomag. i aer. 2 no.3:523-526 My-Je '62. (MIRA 15:11)

1. Institut zemnogo magnetizma, ionosfery i rasprostraneniya
radiovoln AN SSSR, Leningradskoye otdeleniye.
(Magnetism, Terrestrial—Secular variation)

POCHTAREV, V.I.; VINTS, B.D.

Plotting charts of normal magnetic fields by way of calculation.
Geomag. 1 aer. 2 no.2:332-342 Mr-Apr '62. (MIRA 15:6)

1. Institut zemnogo magnetizma, ionosfery i rasprostraneniya
radiovoln AN SSSR, Leningradskoye otdeleniye.
(Magnetism, Terrestrial)

POCHTAREV, V.I.; GUS'KOVA, Ye.G.

Magnetic properties of meteorites. *Geomag. i aer.* 2 no.4:749-758
Jl-Ag '62. (MIRA 15:10)

1. Institut zemnogo magnetizma, ionosfery i rasprostraneniya
radiovoln AN SSSR, Leningradskoye otdeleniye.
(Meteorites—Magnetic properties)

DIMAKSYAN, A.M.; POCHTAREV, V.I.

Use of some methods of information theory in studying
hydrometeorological processes. Meteor. i gidrol. no.12:
37-42 D '63. (MIRA 17:3)

1. Gosudarstvennyy gidrologicheskiy institut.

POCHTAREV, V.I.

Distribution of magnetic densities in the earth. Geomag.1
ser. 2 no.6:1126-1130 N-D '62. (MIRA 16:1)

1. Institut zemnogo magnetizma, ionosfery i rasprostraneniya
radiovoln AN SSSR, Leningradskoye otdeleniye.
(Magnetism, Terrestrial)

ACCESSION NR: AP4031642

S/0203/64/004/002/0372/0375

AUTHOR: Pochtarev, V. I.

TITLE: On the westward drift of the geomagnetic field

SOURCE: Geomagnetizm i aeronomiya, v. 4, no. 2, 1964, 372-375

TOPIC TAGS: earth magnetism, geomagnetic field, agonic line, geomagnetism, homogeneous magnetic field

ABSTRACT: The historical and geographical aspects of the westward drift of the earth's magnetic field (as observed over the past century) are discussed. Data were prepared using the equation:

$$Z_0 = Z[g_1^0 \cos \theta + (g_1^1 \cos \lambda + h_1^1 \sin \lambda) \sin \theta]$$

where Z_0 is the location of the field of homogeneous magnetism; g_1^0 , g_1^1 , and h_1^1 are Gauss coefficients, θ is a correction for latitude, and λ is the longitude. The location Z_a of the magnetic field for several geographic anomalies was computed from the relationship $Z_a = Z - Z_0$, where Z gives the field location as measured.

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ACCESSION NR: AP4031642

along meridians of latitude. A plot was made showing the location of the magnetic field in 1922 and 1955, as measured from selected positions of north and south longitude. Further data were tabulated showing how Z_a has varied for selected geographic anomalies over the period from 1885 to 1950. Additional data were taken and tabulated to indicate the stability of Z_a in the Siberian anomaly. The author has cautioned against making over-generalized conclusions from the data at hand, pointing out the fact that the westward drift of the homogeneous magnetic field (Z_0) in the past 75 years is practically zero. He recommends a broader, more detailed study of the drift phenomenon. The author expresses gratitude to B. D. Vints and N. I. Petrov for their help. Orig. art. has: 4 figures, 2 tables, and 1 equation.

ASSOCIATION: Institut zemnogo magnetizma, ionosfery* i rasprostraneniya radiovoln, AN SSSR, Leningradskoye otdeleniye (Institute of Earth Magnetism, Ionosphere, and the Propagation of Radio Waves, AN SSSR, Leningrad Branch)

SUBMITTED: 19Nov62

ENCL: 00

SUB CODE: ES

NO REF SOV: 003

OTHER: 003

Card 2/2

44456

8/203/62/002/006/013/020
A160/A101

3.9100 (3805, 4705)

AUTHOR: Pochtarev, V. I.

TITLE: The distribution of magnetic densities inside the Earth

PERIODICAL: Geomagnetizm i aeronomiya, v. 2, no. 6, 1962, 1126 - 1130

TEXT: The author presents results of calculations of magnetic densities inside the Earth for three geospheres: for the daytime surface, the geosphere $r = 5,400$ km, and for the nucleus. The data obtained are compared with the magnetic properties of rocks and meteorites. Some previous works contain calculations of the magnetic densities on the surface of the Earth, corresponding to the field of the world anomalies. The same method may be used for calculating densities of the interior geospheres. A chart shows that the maximum values for the daytime surface are 0.03 - 0.05 CGSM. These are the regions of the most intensive world anomalies, the Asiatic, African and South-American. The maximum values $\bar{\sigma}$ for a geosphere with a radius of 5,400 km are 0.1 CGSM, and those for the nucleus boundary - 0.5 CGSM. The crosshatched regions on the chart represent geosyncline zones. The values of the mean densities for three horizons

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S/203/62/002/006/013/020
A160/A101

The distribution of...

($r = 6,400$, $r_1 = 5,400$ and $r_2 = 3,500$ km) are given in CGSM units (the continuous lines are positive $\bar{\sigma}$ values, the dotted lines - negative ones). The results of comparing $\bar{\sigma}$ with the magnetic properties of the meteorites revealed that they are adequately close to one another. On the basis of the theoretical values of the magnetic densities and their spatial distribution, it may be assumed that the temperature in the interior of the Earth is extremely non-uniform and that the inside of the Earth may have large regions in which the temperature is lower than the Curie's point of ferromagnetic materials (about 800°C) and in which the material may be in a magnetic state. The conclusion is drawn that the shell of the Earth is not homogeneous in a magnetic respect, and that the ferromagnetic conception of the nature of the magnetic world anomalies is theoretically fully admissible. However, it is important to conduct further geophysical investigations of the interior of the Earth, especially of its temperature state and of the distribution of the pressure inside the Earth. There is 1 table and 1 figure.

ASSOCIATION: Institut zemnogo magnetizma, ionosfery i rasprostraneniya radiovoln AN SSSR, Leningradskoye otdeleniye (Institute of Terrestrial Magnetism, Ionosphere and Radio Wave Propagation, AS USSR, Leningrad Divison)

SUBMITTED: May 18, 1962
Card 2/3

43163
S/273/62/002/003/015/021
1023/1250

34/16

AUTHOR:

Pochtarev, V.I.

TITLE:

The structure of the secular geomagnetic variation field

PERIODICAL:

Geomagnetizm i Aeronomiya, v.2, no.3, 1962, 523-526

TEXT: The total secular variation of the geomagnetic field δf is divided into four components: δf_0 - the planetary component, connected with changes of the total magnetic moment of the Earth; δf_1 - the world component, connected with variations of the magnetic moment over Earth areas of several millions of square kilometers; δf_2 - the regional component - variations over areas of 10000 - 100000 km², δf_3 - the local component due to variations of magnetic properties of substance occurring locally in small areas. Variations of the vertical component during 1954-1959 were used in the analysis. δf_0 is approximately 30 γ in the course of a year, the sign of δf_0 is such, as to decrease the magnetic moment of the Earth. There is an asymmetry between the two hemispheres: 20 γ in the northern hemisphere, and 40 γ in the southern. δf_w is $\pm 70 \gamma$ for the northern

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S/203/62/002/003/015/021
I023/I250

The structure of the secular...

hemisphere, and $\pm 100 \gamma$ for the southern. The maximum value of \int_{fr} is $\pm 20 \gamma$ during a year. There are 3 figures, 5 references.

ASSOCIATION: Institute zemnogo magnetizma, ionosfery i rasprostraneniya radiovoln Akademii nayk SSSR, Leningradskoye otdeleniye (Institute of Terrestrial Magnetism, Ionosphere and Radiowave Propagation, Academy of Sciences USSR, Leningrad Section)

SUBMITTED: January 29, 1962

Card 2/2

POCHTAREV, V. I.

p. 2 + 4

PHASE I BOOK EXPLOITATION

SOV/4314

Leningrad. Nauchno-issledovatel'skiy institut zemnogo magnetizma ionosfery i rasprostraneniya radiovoln

Trudy, vyp. 14 (24) (Transactions of the Scientific Research Institute of Terrestrial Magnetism, Ionosphere, and Propagation of Radio Waves, No. 14 (24)) Moscow, Svyaz'izdat, 1959. 144 p. Errata slip inserted. 1,000 copies printed.

Additional Sponsoring Agency: Ministerstvo svyazi SSSR

Ed.: (Title page): N. Ye. Malinina; Tech. Ed.: K.G. Markoch; Ed. (Inside book): G.I. Kiseleva.

PURPOSE: This publication is intended for geophysicists and other scientific and technical personnel in research institutes and geological exploration organizations. It may also be used by students of geophysics and geology.

COVERAGE: The articles in this collection deal with problems concerning the permanent magnetic field. The magnetic field of the earth and the geophysical phenomena associated with it, the geologic structure of the earth's crust, the

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Transactions of the Scientific Research Institute (Cont.)

SOV/4311

magnetic properties of rocks, and the influence of the topographic relief upon magnetic measurements are discussed. The first of the three articles in the collection has been abstracted separately. References follow each article.

TABLE OF CONTENTS:

Pochtarev, V.I. Relationship of the Magnetic Field of the Earth With Other Geophysical Phenomena and With the Geologic Structure of the Earth's Crust

The author shows that the magnetic field of the earth is closely related to geologic features of the structure of the earth's crust and to the petrographic heterogeneities of the rocks composing it. It is shown that global anomalies are located on platform blocks which constitute the most stable sections of the earth's crust. The global centers of secular changes in the magnetic field correspond to geosynclinal regions, as unstable sections of the earth's crust. This distribution of global magnetic anomalies and of secular trend centers results from the fact that the rocks composing the crust, as well as part of the subcrustal layer involved in tectonic processes, possess magnetic properties and, undergoing a change with time, form the centers of the secular trend. This is also proved by the simultaneous existence of gravity and magnetic anomalies, a fact which can not be explained by the electric nature of magnetic anomalies. Electric currents

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Transactions of the Scientific Research Institute (Cont.)

SOV/4314

may generate the necessary magnetic field, but they can not account for the presence of the gravity anomaly field caused by large masses of considerable density. The geothermal gradient, usually accepted as equal to 33° per 1 km, can not be used in calculations of the temperature of the Earth's interior, since this gradient has been deduced on the basis of data referring only to sedimentary rocks. On the other hand, secular changes of the magnetic field may be regarded as a source of valuable information on the thermal and chemical processes occurring inside the Earth's crust. The author is of the opinion that his thesis on the origin of the global magnetic anomalies, as outlined in the article, makes it possible to explain those characteristic features of the magnetic field which hitherto have remained unexplained, namely: the geographic location of global magnetic anomalies and their relation to gravity anomalies; the complex phenomena of secular changes, ~~globally~~ regional, and local; the observed position of the magnetic poles; the greater magnetization of the Eastern Hemisphere, as compared with the Western; the behavior of zero isogonal lines, etc. The author thanks B.M. Yanovskiy, B.A. Andreyev, Yu. D. Kalinin, V.P. Orlov, D.L. Finger, and P.M. Gorshkov.

Card 3/4

POCHTAREV, V.I.

Western drift of the geomagnetic field. Geomag. i aer. 4 no.2:
372-375 Mr-Ap '64. (MIRA 17:4)

1. Institut zemnogo magnetizma, ionosfery i rasprostraneniya
radiovoln AN SSSR, Leningradskoye otdeleniye.

S/081/61/000/024/051/086
B107/B110

AUTHORS:

Kaznachev, B. Ya., Zhogina, V. M., Pochtareva, V. I.

TITLE:

Effect of the electrolysis conditions on the shape of the hysteresis loop in the electrodeposition of magnetically hard alloys

PERIODICAL:

Referativnyy zhurnal. Khimiya. no. 24, 1961, 344 - 345. abstract 24K132 (Tr. Vses. n.-i. in-ta zvukozapisi, no. 8, 1961, 61 - 86)

TEXT: The production conditions of magnetically hard alloys (Co - Ni, Co - Ni - P and Co - W) with a widely varying range of the magnetic properties (coercive force 100 - 80 oe, residual induction up to 6000 gauss) were studied. The orthogonality of the hysteresis loop can be changed by changing the electrolysis conditions (temperature, pH, current density and velocity of rotation of the cathode). It was impossible, however, to obtain deposits with an orthogonality close to 1. The orthogonality of the hysteresis loop of the deposits obtained is reduced under the follow-

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Effect of the electrolysis ...

S/081/61/000/024/051/086
B107/B110

ing conditions: For Co - Ni if the solution temperature is above 60°C;
for Co - Ni - P if the current density decreases below 5 a/dm²; further-
more, if pH exceeds 5 and if the solution temperature is below 40°C or
above 60°C; for Co - W if the temperature is below 40°C or above 70°C.
Furthermore, for a pH below 3. [Abstracter's note: Complete translation.]

Card 2/2

KOBYAZIN, N.V. [deceased]; POLYAKOVA, I.N.; POCHTAREVA, V.I.

Effect of temperature on the restoration of reproductive function in yeast cells injured by ultraviolet radiation. Dokl. AN SSSR 159 no.6:1411-1414 D '64 (MIRA 18:1)

1. Moskovskiy gosudarstvennyy universitet. Predstavleno akademikom A.N. Belozerskim.

L 23533-65

ACCESSION NR: AP5002002

S/0020/64/159/006/1411/1414

AUTHOR: Kovyazin, N. V. (Deceased); Polykova, I. N.; Pochtareva, V. I. B

TITLE: Influence of temperature on the recovery of the reproductive function of yeast cells damaged by ultraviolet radiation

SOURCE: AN SSSR. Doklady, v. 159, no. 6, 1964, 1411-1414

TOPIC TAGS: radiation damage, yeast cell, reproduction, ultraviolet irradiation, reproduction recovery, postradiation treatment

ABSTRACT: The postradiation treatment of exposed cells is known to affect their chances for survival. Thus, one of the authors showed earlier (N. V. Kovyazin, Shurn. obshch. biol., 21, 382, 1960) that keeping UV-irradiated diploid yeast cells in aqueous nonnutritive medium at 30C led to a partial regeneration of their reproductive functions. The present work (on a 24-hr. culture of *S. Vini*) investigated the dependence of the recovery process on the length and temperature of incubation and complements the previous findings. As shown in Fig. 1. of the Enclosure, recovery is maximal in a temperature range of 20-40C. A reduction in temperature (down to 10C) which reduces the metabolic rate also slows down the recovery processes within the cells. Various reactions seem to take place simul-
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L 23533-65

ACCESSION NR: AP5002002

taneously and the recovery process requires a minimum background temperature for a successful regeneration of the reproductive capacity. In addition to a predetermined temperature, these reactions also require a definite interval of time, which is longer at higher doses of radiation. Orig. art. has: 2 figures.

ASSOCIATION: Moskovskiy gosudarstvennyy universitet im. M. V. Lomonosova (Moscow state university)

SUBMITTED: 25Mar64

ENCL: 02

SUB CODE: LS

NO REF SOV: 004

OTHER: 000

Card 2/4

S/137/62/000/012/031/085
A006/A101

AUTHOR: Pochtenny, Ye. K.

TITLE: The heat effect in cyclic symmetrical loading of parts

PERIODICAL: Referativnyy zhurnal, Metallurgiya, no. 12, 1962, 49 - 50,
abstract 12I294 (In collection: "Tsiklich. prochnost' metallov",
Moscow, AN SSSR, 1962, 227 - 232)

TEXT: The MYH -6000 (MUI-6000) machine was used for symmetrical cyclic bending tests of 20 X (20Kh), 35, and 45 grade steel specimens. The temperature on the surface of the specimen neck was recorded by photoresistance ΦC A-1 (FS A-1) incorporated into one of the measuring bridge arms. The bridge was power supplied and the signal was amplified from a YT-4 M (UT-4M) amplifier. The signal on the amplifier outlet was measured with a multirange milli-ampere meter. Prior to the tests the scheme was calibrated with the use of a special hollow specimen with an internal heater. The measuring system made it possible to record the mean temperature of the specimen neck with a basic magnitude of error from + 0.5 to $\pm 2^{\circ}C$ in the 20 - 350 $^{\circ}C$ temperature range. On the basis of the

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The heat effect in cyclic symmetrical loading of parts S/137/62/000/012/031/085
A006/A101

results obtained the metal fatigue process is divided into 3 periods. During the initial period the mean temperature of the neck is constant and equal to the temperature of the surrounding medium; this is explained by the fact that the dislocation sources are activated by the application of a given number of loading cycles to the metal; this number increases with a decrease in the loading amplitude. During the second period a heat effect takes place, proving the presence of plastic deformation. During the third fatigue period a secondary heat effect is observed; it is caused by stress concentrations at the ends of the fatigue crack. This effect is the higher the lesser the loading amplitude. A method and final formulae are proposed to calculate the fatigue curve of the metal from the heat effect temperatures, obtained as a result of testing one specimen. There are 8 references.

V. Stepanov

[Abstracter's note: Complete translation]

Card 2/2

POCHTENNY, Ye. K., Cand Tech Sci -- 'Certain problems of the
dislocation theory of deformation of parts of machines."
Minsk, 1961. (Min of Higher Sec Spec and Vocational Ed BSSR.
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- 291a -

PHASE I BOOK EXPLOITATION

SOV/5594

Pochtenny, Ye. K.

Vvedeniye v dislokatsionnyu teoriyu deformatsii detaley mashin
(Introduction to the Dislocation Theory of Deformation of Machine Parts)
Minsk, Redizdat otdel BPI im. I. V. Stalina, 1960. 98 p. 2,000 copies
printed.

Sponsoring Agency: Ministerstvo vysshego, srednego spetsial'nogo i profess-
ional'nogo obrazovaniya BSSR. Belorusskiy politekhnicheskiy institut imeni
I. V. Stalina.

Ed. of Publishing House: N. V. Kapranova; Tech. Ed.: Ye. P. Konchits.

PURPOSE: This booklet is intended for scientific research personnel in machine
building; it may also be used by students in schools of higher technical
education.

COVERAGE: The book discusses the physical fundamentals of elastic and plastic
deformations of machine parts and the mechanics of the deformation of elasto-
plastic solids from the standpoint of the dislocation theory. A theoretical
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Introduction to the Dislocation (Cont.)

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analysis of mechanical analogs of solids and their equations is given. An application of the dislocation theory to constant-rate deformation and the results of an investigation of symmetrical-cyclic loading of parts are presented. The book was written at the Belorusskiy politekhnicheskiy institut (Belorussian Polytechnic Institute), under the supervision of V. N. Treyyer, Corresponding Member of the AS BSSR, Doctor of Technical Sciences, Professor. There are 38 references: 35 Soviet and 3 English.

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Card 2/4

POCHTENNYI, Ye.K.; KAPRANOVA, N.V., red. izd-va; KONCHITS, Ye.P.,
tekhn. red.

[Introduction to the dislocation theory of the deformation of
machine parts] Vvedenie v dislokatsionnuu teoriu deformatsii
detalei mashin. Minsk, Redaktsionno-izdatel'skii otdel BPI im.
I.V.Stalina, 1960. 98 p. (MIRA 14:5)
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Housing construction in villages of Leningrad Province.
Zhil.stroi. no.2:2-6 F '60. (MIRA 13:5)
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ANDON'YEV, S.M.; GLAZKOV, P.G. [deceased]; KUCHIN, V.A.; KONDRAT'YEV, Ye.M.;
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Heating Martin furnaces with natural gas using reformers.
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i vychislitel'noy tekhniki. Rekomendovana kafedroy gornoy
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KHOBOTOV, V.

"Radio and electronics in the production of precast reinforced concrete"
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1. Kafedra stroitel'nykh konstruksiy Moskovskogo avtodorozhnogo instituta (for Pochtovik, Krasnovskiy). 2. Zaveduyshchiy laboratoriyey eledroniki Moskovskogo avtodorozhnogo instituta (for Khobotov).
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